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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/735,177      | 12/12/2003  | Francesco Gropallo   | 206,383             | 1657             |

7590 03/16/2006

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| EXAMINER |
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EDMONDSON, LYNNE RENEE

|          |              |
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| ART UNIT | PAPER NUMBER |
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1725

DATE MAILED: 03/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/735,177

Applicant(s)

GROPALLO, FRANCESCO

Examiner

Lynne Edmondson

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-15 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13-15 is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 12 and 18 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-3, 6-8 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Martucci et al. (USPN 3496629).

Martucci teaches a brazing process to join two metal at least one part being tubular (10), the other a tubular manifold (14), by positioning a preformed brazing filler metal (12) in a groove in one of the parts, aligning the parts such that the end of the tube is inserted a predetermined distance and heating the parts in a furnace (figures 1-3 and col 1 line 61 – col 2 line 27) to form a radiator (heat exchanger, col 1 lines 25-31).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martucci et al. (USPN 3496629).

Martucci teaches a brazing process to join two metal at least one part being tubular (10), the other a tubular manifold (14), by positioning a preformed brazing filler metal (12) in a groove in one of the parts, aligning the parts such that the end of the tube is inserted a predetermined distance and heating the parts in a furnace (figures 1-3 and col 1 line 61 – col 2 line 27). However there is no disclosure of the distance into the hole.

It would have been obvious to one of ordinary skill in the art at the time of the invention that the depth to which the tube is inserted into the hole is a design factor based on tube size, finished article size and is typically chosen such that a minimal amount of tubing is inserted while maintaining a strong, reliable joint.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martucci et al. (USPN 3496629) in view of Conn et al. (USPN 5360158).

Martucci teaches a brazing process to join two metal at least one part being tubular (10), the other a tubular manifold (14), by positioning a preformed brazing filler metal (12) in a groove in one of the parts, aligning the parts such that the end of the tube is inserted a predetermined distance and heating the parts in a furnace (figures 1-3 and col 1 line 61 – col 2 line 27). However there is no disclosure of the preform formed from a folded wire.

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Conn teaches a brazing process to join two metal parts at least one part being tubular by positioning a coated brazing ring formed of shaped wire (26) on one of the parts (12), aligning the parts and heating the parts in a furnace (figures 1 and 4, col 1 lines 10-15, col 2 lines 10-26, col 7 lines 33-56, col 8 lines 27-36 and col 10 line 51 – col 11 line 5).

It would have been obvious to one of ordinary skill in the art at the time of the invention that a folded wire is an obvious variation of a ring filler.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Martucci et al. (USPN 3496629) in view of Halvorsen (USPN 3871063).

Martucci teaches a brazing process to join two metal at least one part being tubular (10), the other a tubular manifold (14), by positioning a preformed brazing filler metal (12) in a groove in one of the parts, aligning the parts such that the end of the tube is inserted a predetermined distance and heating the parts in a furnace (figures 1-3 and col 1 line 61 – col 2 line 27). However there is no disclosure of a tapered tube.

Halvorsen teaches a brazing process to join two metal parts at least one part being a tapered tubular (18) by positioning a braze material (27) on one of the parts, aligning the parts and heating the parts in a furnace (figures 1 and 3, and col 3 line 52 – col 4 line 34).

It would have been obvious to one of ordinary skill in the art at the time of the invention that the process would be the same for a variety of tube shapes including but not limited to flat and tapered.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-4, 6-9, 12 and 18 have been considered but are moot in view of the new ground(s) of rejection.

***Allowable Subject Matter***

8. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 13-15 are allowed.

***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Overy (GB 2092692 A), Huddleston et al. (USPN 5617992), Laudic et al. (USPN 6543675 B1) and Saperstein (USPN 4529034, radiator a type of heat exchanger).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynne Edmondson whose telephone number is (571) 272-1172. The examiner can normally be reached on Monday through Thursday from 6:30 a.m. to 5 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lynne Edmondson  
Primary Examiner  
Art Unit 1725

*LE*  
*3/14/06*

LRE